

REMARKS

Claims 4 and 19-33 were previously cancelled. Accordingly, Claims 1-3 and 5-18 are pending.

Rejection under 35 U.S.C. §103 over *Lanner* in View of *Tallberg* and *Buwalda*

Claims 1-3, 5-7, 9-15 and 18 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Lanner et al.* (U.S. Patent No. 6,022,574, hereinafter "*Lanner*") in view of *Tallberg et al.* (U.S. Patent No. 5,824,798, hereinafter "*Tallberg*") and *Buwalda* ("Sheer Versatility" *Potato Business World* May/June 1998). (See Office Action pages 2-3, paragraph 2.)

In order to prepare the snack foods of the present invention, genetically modified high amylopectin content potatoes are used to make potato flakes and/or potato granules. The potato flakes and potato granules are pieces from a whole potato and differ in composition from a raw potato only in their water content. The potato cells are predominantly still intact in these flakes and granules; and the starch is essentially still contained in these cells.

The potato flakes and/or potato granules are used to prepare dough. The dough is heated (i.e., cooked) upon which it expands to form the desired snack food. At least 20% by weight of the snack food is the high amylopectin potato flakes/granules. Surprisingly, as a result of using potato flakes/granules in which the starch comprises 95% or more amylopectin (rather than natural potatoes in which the starch comprises only about 80% amylopectin), the snack foods of the present invention are much more expanded after heating than snack foods of the prior art.

The primary reference cited by the Examiner, *Lanner*, discloses a process for making a shaped snack product. The Examiner concedes that *Lanner* 1) does not disclose potatoes with an amylopectin content of at least 95%; 2) does not disclose at least 20% by weight of a snack food being high amylopectin potatoes; 3) does not disclose greater expansion; and 4) does not disclose a genetically modified potato. (See Office Action page 2, paragraph 2.)

In an attempt to rectify the deficiencies in the primary reference, the Examiner cites the secondary reference of *Tallberg* as disclosing high amylopectin potato and cites the secondary reference of *Buwalda* as disclosing that **isolated** amylopectin potato starch provides improved expansion properties in snack foods. The Examiner cannot even attempt to show that a reference discloses that amylopectin potato pieces increase expansion or at least 20% by weight of a snack food being high amylopectin potato pieces.

The Examiner alleges that in the previous Amendment, Applicants showed nonobviousness “by attacking references individually where the rejections are based on combinations of references.” (See Office Action page 5, 1st paragraph.)

Applicants do not understand the Examiner’s allegations. Applicants *did* show nonobviousness based on the combination of references, as discussed below.

Section 2143 of the M.P.E.P. provides guidelines to determine if a claimed invention is obvious in the wake of *KSR International Co. v. Teleflex, Inc.* (82 USPQ2d 1385 (2007)). There, rationales that may be used by an examiner to support a conclusion of obviousness are listed from A to G. In order for an examiner to conclude an invention is obvious under Rationales A-F, the results of the invention are required to be “predictable” in view of the prior art. Under Rationale G, there must be “...a finding that there was reasonable expectation of success.” (See

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Examination Guidelines for Determining Obviousness under 35 U.S.C. § 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex, Inc.* Federal Register, Vol. 72, No. 195, page 57534, col. 1, October 10, 2007.)

Accordingly, a proper rejection based on obviousness requires that, in view of the prior art, a skilled artisan would have had predicted or reasonably expected that the claimed invention would have been successful.

The Examiner does not appreciate the difference between isolated amylopectin potato starch discussed in *Buwalda vis-à-vis* the amylopectin potato pieces used in the present invention. It is critical to note that *Buwalda* only teaches isolated potato starch may increase expansion. *Buwalda* does **not** teach anything about high amylopectin potato pieces. Due to the fundamental differences in the physical characteristics of isolated potato starch *vis-à-vis* potato pieces, a skilled artisan would have thought that the effect isolated amylopectin starch has on expansion behavior teaches nothing about the effect pieces of amylopectin potato has on expansion behavior.

In the Applicants' previous Amendment, a detailed discussion regarding the differences between isolated starch and potato pieces was provided. For the sake of convenience, the discussion is provided in a separate section below on page 8.

Since isolated amylopectin potato starch and amylopectin potato pieces have very different properties, there would have been no way to predict, nor reasonably expect, that though isolated amylopectin starch was said to give "good expansion properties" that amylopectin pieces would do similarly.

Additionally, the **goal of *Lanner*** is “**to control the expansion of the dough during frying.**” (See col. 4, lines 47-51, of *Lanner*.) Clearly, “controlling” expansion is contrary to “increased” expansion. Thus, *Lanner* teaches away from increased expansion.

Accordingly, viewing the combination of references, the claims can not be obvious in view of the cited prior art. Withdrawal of the rejection is respectfully requested.

Buwalda only teaches **isolated** potato starch

The author of *Buwalda*, i.e., Dr. Buwalda, corroborated that his article only addresses **isolated** starch in his declaration (filed on April 18, 2007). However, even without Dr. Buwalda's declaration, it is clear from the article itself that only isolated starch is addressed. In the article, starch is discussed as a chemical, which may be suspended or dissolved, and derivatized. A skilled artisan of starch chemistry would not refer to starch in such a manner if he were discussing starch which is still contained in potato pieces (e.g., flakes and granules). Also see page 11, the middle column, first paragraph where it is stated: "As potato starch is a mixture of amylopectin and amylose, solutions have a tendency to retrograde." This statement cannot relate to potato pieces which also contain 20 wt.% of non-starch components such as proteins, fibers, non-reducing sugars and amino acids. Also, see page 12, 1st column, 3rd paragraph, which discusses the “solubility” of starch in hot and cold water.

The fact that *Buwalda* only teaches isolated starch is critical. There are essential differences in the physical characteristics (e.g., rheological characteristics) between isolated potato starch and potato pieces, as would be known by a skilled artisan. For example, in potato pieces, starch is embedded in a matrix of other constituents; whereas, isolated starch is not embedded in a matrix. The other constituents include soluble proteins, cell walls and other

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soluble materials (e.g., salts, sugars, and amino acids). Being embedded in a matrix, the starch in the potato pieces is tied up and cannot behave in the same way isolated starch would behave.

A skilled artisan would have known about the fundamental differences between isolated starch and starch in potato pieces. Thus, knowing that isolated amylopectin starch provides improved expansion properties in snack foods would not have taught a skilled artisan anything about the effect amylopectin potato pieces may have on the expansion of snack foods. That is, the effect that isolated amylopectin starch has on expansion is virtually irrelevant to the effect amylopectin pieces may have on expansion.

Other Rejections under 35 U.S.C. §103 with *Lanner* as Primary Reference

Claim 8 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lanner* in view of *Tallberg* and *Buwalda*, and further in view of Fazzolare *et al.* (U.S. Patent No. 4,834,996). (See page 3, paragraph 3, of the Office Action.)

Since the claims upon which Claim 8 depends are not obvious over *Lanner* in view of *Tallberg* and *Buwalda*, as discussed above, the further disclosure by Fazzolare *et al.* does not render Claim 8 obvious. Accordingly, Applicants request withdrawal of this obviousness rejection.

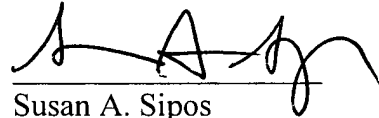
Claims 16 and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lanner* in view of *Tallberg* and *Buwalda* and further in view of Villagran *et al.* (U.S. Patent No. 6,544,580). (Office Action page 4, paragraph 4.)

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Since the claims upon which Claims 16 and 17 depend are not obvious over *Lanner* in view of *Tallberg* and *Buwalda*, as discussed above, the further disclosure by Villagran *et al.* does not render Claims 16 and 17 obvious. Accordingly, Applicants request withdrawal of this obviousness rejection.

Applicants respectfully submit that the application is now in condition for allowance, which action is earnestly solicited. If resolution of any remaining issue is required prior to allowance of this application, it is respectfully requested that the Examiner contact Applicants' undersigned attorney at the telephone number provided below.

Respectively submitted,



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